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**CLAIMS**

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[Claim(s)]

[Claim 1]A slot machine comprising:

A display which two or more patterns align in all directions, and is shown.

In a slot machine which supplied a regular right to a game person when a pattern which has a final controlling element for changing each of that pattern, and was shown in said display formed a predetermined winning-a-prize pattern, An identification device which leaves a pattern which formed a winning-a-prize pattern in said display, and a field which counters while it has been transparent and by which other patterns and a field which counters are temporarily made translucent or opaque.

[Claim 2]A slot machine comprising:

A display which two or more patterns align in all directions, and is shown.

In a slot machine which supplied a regular right to a game person when a pattern which has a final controlling element for changing each of that pattern, and was shown in said display formed a predetermined winning-a-prize pattern, An identification device distinguished from a field where it paints to this pattern and a field which counters, making into a visible state a pattern in which a winning-a-prize pattern was formed, and other patterns counter said display.

[Claim 3]Claim 1 to which an identification device changes from a liquid crystal panel, or a slot machine indicated to 2.

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## DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention]This invention relates to the slot machine which determines whether to be winning a prize from enumeration of the pattern shown in a display.

[0002]

[Description of the Prior Art]Conventionally, a slot machine is well known as a game machine with which a pattern is doubled. The kind of slot machine makes 3 parallel the drum of the ring shape which gave several kinds of patterns to the peripheral surface at equal intervals, contains it in a machine frame, and enables it to have recognized some of the patterns of each of that drum visually from the outside through the display slack fluoroscopy window generally. The display carries out the opening of the front face of a machine frame selectively, for example corresponding to each drum, and closes the opening with transparent materials, such as a glass plate.

Here, as usually, for every drum, a total of nine patterns align three [ at a time ] here in all directions, and it is shown.

A slot machine is what performs a game using a predetermined medal here, The final controlling element for changing the entrance slot which throws in the medal for it, and the pattern shown in a display after an injection of a medal to a machine frame, When enumeration of the pattern updated by operation of this final controlling element forms a predetermined winning-a-prize pattern, the hopper etc. in which the return port for returning the medal of a predetermined number and the medal for return are stored are formed. Although a final controlling element comprises a slot lever for rotating each drums all at once, and a stop button which can stop the drum under rotation individually, there is also a thing of form which makes each drum stop automatically, without having a stop button.

[0003]And if according to the slot machine constituted as mentioned above enumeration of the pattern shown in a display forms a predetermined winning-a-prize pattern when a final controlling element is operated, a game is performed after an injection of the medal to an entrance slot and all the drums stop, the game person can acquire rights. For example, when the predetermined pattern in a top drum is shown in a display, a medal is returned two sheets, When the pattern of the same kind in a \*\*\* drum arranges on a straight line, the medal of 6-15 sheets is returned by the classification of the pattern, When "7" arranges on a straight line as a pattern of the same kind especially, the right for the probability which forms a winning-a-prize pattern in subsequent games with return of the medal of a predetermined number to be raised will be acquired.

[0004]Generally, the number of injections of the medal per time makes three sheets a maximum, and them at the time of an one-sheet injection the horizontal single tier of the middle, At the time of a two-sheet injection, which horizontal single tier of each stage with the supply of a right [ as opposed to / when the sequence which added the oblique direction at the time of a three sheet injection is made into a winning-a-prize decision line, respectively and a winning-a-prize pattern is

formed on the line / like / \*\*\*\* / a game person ]. It enables it to have told winning a prize to the game person by making the lamp formed near the display turn on.

[0005]

[Problem to be solved by the invention]Only however, the thing which formed the lamp which tells winning a prize near the display, The enjoyment of a game will be lacked that it is difficult like before for a winning line to express with which line a prize was won when a winning line was complicated, in order to attain diversification of a game better at the cases of being comparatively simple, such as linear, and the distinction is not easily attached as for a game person.

[0006]This invention is accomplished in view of the above situations, and it is in a game person raising the enjoyment of a game substantially, as the place made into the purpose can distinguish easily a pattern applicable at the time of winning a prize.

[0007]

[Means for solving problem]The thing this invention is characterized by that comprises the following and which provides a slot machine.

The display which two or more patterns align in all directions, and is shown in order to attain the above-mentioned purpose.

In the slot machine which supplied the regular right to the game person when the pattern which has a final controlling element for changing each of that pattern, and was shown in said display formed a predetermined winning-a-prize pattern, The identification device which leaves the pattern which formed the winning-a-prize pattern in said display, and the field which counters while it has been transparent and by which other patterns and the field which counters are temporarily made translucent or opaque.

[0008]The slot machine this invention is characterized by that comprises the following.

The display which two or more patterns align in all directions as other modes, and is shown.

In the slot machine which supplied the regular right to the game person when the pattern which has a final controlling element for changing each of that pattern, and was shown in said display formed a predetermined winning-a-prize pattern, The identification device distinguished from the field where it paints to this pattern and the field which counters, making into a visible state the pattern in which the winning-a-prize pattern was formed, and other patterns counter said display.

[0009]Although the shield whose opening and closing are enabled individually can also be formed on the display position of each pattern as an identification device here, it is desirable to constitute an identification device from a liquid crystal panel preferably.

[0010]

[Mode for carrying out the invention]Hereafter, the example of application of this invention is explained in detail based on Drawings. First, drawing 1 is a front view showing an example of a slot machine. In drawing 1, it is a machine frame in which 1 accomplishes the exterior of a slot machine, and the pivotable drum which made 2 the letter of 3 parallel and provided it in the inside of a machine frame, and two or more patterns of the kind are given to the peripheral surface of each of that drum 2 at equal intervals in the hoop direction, respectively. 3 is a display which can see through the pattern of each drum, and for every drum, a total of nine patterns align three [ at a time ] in all directions at this display 3, and it is shown in it. 4 is a final controlling element for changing the pattern which appeared in the display, and this final controlling element 4 comprises the slot lever 5 for rotating each drums 2 all at once, and the stop button 6 for stopping each drum 2 individually. The guidance light for specifying the starting light which 7 formed under the display corresponding to each drum, and the winning line validated by 8, 9 is an entrance slot of a medal required to perform a game, among these the starting light 7 is turned on during rotation of the drum 2, according to the number of injections of a medal, the light is switched on in order, and the guidance light 8 blinks only the thing on a line applicable at the time of winning a prize. A return port

for 10 to pay out the medal of a predetermined number at the time of winning a prize, the saucer which receives the medal which 11 paid out, and 12 are displays for indication which display the volume of payment of a medal. Here, the medal used for a game can be stored not only in supplying from an entrance slot each time but in an internal memory to 50 sheets as data. The injection button used when the display for indication with which 13 shows the reservoir quantity, and 14 use this medal, and 15 are the liquidation buttons for taking out the actual thing of this medal. In addition, the return button used when the medal which 16 threw into the entrance slot is got blocked, and 17 show the ash pan.

[0011]Next, drawing 2 shows the example of composition of the control circuit in an application-concerned slot machine. In drawing 2, control-block A begins CPU18 as a central processing unit, the execution program of the game is written in ROM19, including ROM19 and RAM20, and the data needed for games, such as the amount of reservoir medal numbers, is written in RAM20 each time.

[0012]On the other hand, as for the drum 2, control-block B is linked with CPU18 via the control section 21 and the position transducer 22 of the motor for driving, including the drum 2 as a controlled object, the slot lever 5 as the final controlling element 4, the stop button 6, and the entrance slot 9. It is made for the quantity of the medal thrown in from the entrance slot 9 to be transmitted through the quantity detector 23 CPU18 with this figure, so that clearly. Here, an output unit including the starting light 7, the guidance light 8, the displays for indication 12 and 13, etc. is connected to CPU18 via the control section 24. The hopper 26 in which many medals are stored, and the liquid crystal panel 33 mentioned later are also respectively connected to CPU18 via the control sections 25 and 27.

[0013]Next, drawing 3 shows an example of composition of a display. The display 3 carries out the opening of the part of a front face of the machine frame 1 which faces a peripheral surface of each drum 2, considers it as the window 31, and is constituted by fixing the liquid crystal panel 33 via the bezel 32 inside this window 31 so that clearly [ in this figure ]. The liquid crystal panel 33 constitutes an identification device which can distinguish easily a pattern in which a winning-a-prize pattern was formed, as coloring control of a pattern of each drum 2 at the time of a stop and the nine fields which counter is individually carried out by the driver slack control section 27.

[0014]Drawing 4 is the example which painted to an opposed face with other patterns, and was made translucent, leaving an opposed face with a pattern in which a winning-a-prize pattern was formed, transparently and colorlessly. In drawing 4, a winning-a-prize pattern is formed of three patterns shown with a star shape, A pattern of a star shape which forms that winning-a-prize pattern at this time, and a field which counters are left behind while it has been water-white, it is painted to a field where other patterns unrelated to a winning-a-prize pattern counter by translucent state (slash part of a figure), and it is made indistinct [ this pattern ]. A pattern which forms a winning-a-prize pattern by this, and the other pattern are divided into light and darkness, and since it becomes clear while only a pattern which forms a winning-a-prize pattern has been a visible state, the game person can distinguish a winning-a-prize state in an instant.

[0015]Here, if an operation of the slot machine constituted as mentioned above is explained, in performing a game, a game person will throw the medal of 1-3 sheets into the entrance slot 9 first. Then, while the winning line validated is decided, the game person can check the number of injections of a medal with lighting of the guidance light 8. And after checking this, each drums 2 rotate all at once by operating the slot lever 5. Then, timing is measured, each stop button 6 is pushed, and the corresponding drum 2 is stopped in order. If the pattern which all the drums 2 stopped and was shown in the display 3 in this way forms a predetermined winning-a-prize pattern, it will be detected by the position transducer 22 which this shows to drawing 2, and the detecting signal will be outputted to the control section 27 of the liquid crystal panel 33 through CPU18. The liquid crystal panel 33 drives only fixed time by this, and it leaves the pattern in which the winning-a-prize pattern was formed, and the field which counters, and it is palely painted to other patterns and the field which counters in red etc., and it is made translucent. And when fixed time passes, it

will change the liquid crystal panel 33 into a non-operative state, and all the corresponding patterns can be vividly checked through the display 3 by returning all the fields transparently and colorlessly. [0016]When the expenditure signal of a medal is outputted also to the hopper 26 through the control section 25 at the time of winning a prize and a prize is especially won in a predetermined pattern, the program of ROM19 carries out a step to a specific routine as everyone knows, and what is called a bonus game is started. On the other hand, if it becomes clear that the winning-a-prize pattern is not formed on which winning line by the position transducer 22, The signal is outputted to the control section 27 of the liquid crystal panel 33 through CPU18, and it tells that it was painted only to fixed time by the translucent state, and all the fields of the liquid crystal panel 33 which counters each pattern by this did not win a prize of a game person.

[0017]As mentioned above, although a suitable example of this invention was explained, this invention can also make the pattern corresponding to this the entire invisible state instead of an indistinct display not only the above-mentioned example but by making deep coloring of a pattern unrelated to a winning-a-prize pattern, and the field which counters, for example, and making this field opaque. On the contrary, while painting to an opposite field with this pattern at a translucent state, with the fluoroscopy of the pattern in which the winning-a-prize pattern was formed enabled, while it has been water-white, it can leave an opposite field with other patterns. While painting in the translucent state, the field on a pattern unrelated to a winning-a-prize pattern is made unique with the field on the pattern related to a winning-a-prize pattern, and it may be made to paint to the field on the pattern in which the winning-a-prize pattern was formed, translucent or opaquely.

[0018]As a method of controlling an identification device slack liquid crystal panel, whenever 1 time of a game is completed (after a stop of all the drums), it paints to all the fields of the liquid crystal panel 33 translucent or opaquely. When the field on a winning line corresponding in response to the detecting signal at the time of a medal injection is made transparent, all the drums 2 stop and a winning-a-prize pattern is formed in a predetermined pattern. It leaves the field which counters this and other fields are previously made translucent or opaque, and subsequently, it may be made to make a winning-a-prize pattern space translucent or opaque (after fixed time lapse until a medal finishes paying out).

[0019]An identification device is not constituted from a liquid crystal panel of one sheet, but it may be made to control these individually on the other hand using the liquid crystal panel of the number corresponding to the pattern which appears in a display, respectively. An identification device slack liquid crystal panel is made to face on the peripheral surface of each drum, and it does not equip, but may be made to pile up the liquid crystal panel as an identification device on the display as a display which comprises a liquid crystal display in each drum. It may be made to form individually the shield in which switching operation is possible on the display surface of each pattern in the display which a pattern aligns in all directions and is shown not using a liquid crystal panel as an identification device, respectively.

[0020]Here, a winning-a-prize pattern may not be restricted to a pattern of the same kind arranging on a straight line, and the case where the pattern shown with a heart shape, for example like drawing 5 is located in a line with cross shape may be set up as a winning-a-prize pattern. Even if it uses a winning-a-prize pattern like drawing 5 by this invention especially, it is possible to distinguish this in an instant.

[0021]

[Effect of the Invention]By the above explanation, according to the slot machine concerning this invention, so that clearly. When the pattern which appeared on the display forms a predetermined winning-a-prize pattern. From having the identification device which made translucent or opaque the field where the opposite field is made transparent and an unrelated pattern counters. A game person can distinguish in an instant whether at the time of winning a prize, which winning-a-prize pattern of a number of inside was formed, and in what kind of position of a display the winning-a-prize pattern was formed. Thereby, it can complicate a winning-a-prize pattern and the enjoyment of a game not

only increases, but can attain diversification of a game.

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**TECHNICAL FIELD**

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[Field of the Invention]This invention relates to the slot machine which determines whether to be winning a prize from enumeration of the pattern shown in a display.

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## PRIOR ART

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[Description of the Prior Art]Conventionally, a slot machine is well known as a game machine with which a pattern is doubled. The kind of slot machine makes 3 parallel the drum of the ring shape which gave several kinds of patterns to the peripheral surface at equal intervals, contains it in a machine frame, and enables it to have recognized some of the patterns of each of that drum visually from the outside through the display slack fluoroscopy window generally. The display carries out the opening of the front face of a machine frame selectively, for example corresponding to each drum, and closes the opening with transparent materials, such as a glass plate. Here, as usually, for every drum, a total of nine patterns align three [ at a time ] here in all directions, and it is shown.

A slot machine is what performs a game using a predetermined medal here, The final controlling element for changing the entrance slot which throws in the medal for it, and the pattern shown in a display after an injection of a medal to a machine frame, When enumeration of the pattern updated by operation of this final controlling element forms a predetermined winning-a-prize pattern, the hopper etc. in which the return port for returning the medal of a predetermined number and the medal for return are stored are formed. Although a final controlling element comprises a slot lever for rotating each drums all at once, and a stop button which can stop the drum under rotation individually, there is also a thing of form which makes each drum stop automatically, without having a stop button.

[0003]And if according to the slot machine constituted as mentioned above enumeration of the pattern shown in a display forms a predetermined winning-a-prize pattern when a final controlling element is operated, a game is performed after an injection of the medal to an entrance slot and all the drums stop, the game person can acquire rights. For example, when the predetermined pattern in a top drum is shown in a display, a medal is returned two sheets, When the pattern of the same kind in a \*\*\* drum arranges on a straight line, the medal of 6-15 sheets is returned by the classification of the pattern, When "7" arranges on a straight line as a pattern of the same kind especially, the right for the probability which forms a winning-a-prize pattern in subsequent games with return of the medal of a predetermined number to be raised will be acquired.

[0004]Generally, the number of injections of the medal per time makes three sheets a maximum, and them at the time of an one-sheet injection the horizontal single tier of the middle, At the time of a two-sheet injection, which horizontal single tier of each stage with the supply of a right [ as opposed to / when the sequence which added the oblique direction at the time of a three sheet injection is made into a winning-a-prize decision line, respectively and a winning-a-prize pattern is formed on the line / like / \*\*\* / a game person ]. It enables it to have told winning a prize to the game person by making the lamp formed near the display turn on.

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## EFFECT OF THE INVENTION

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**TECHNICAL PROBLEM**

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[Problem to be solved by the invention]Only however, the thing which formed the lamp which tells winning a prize near the display, The enjoyment of a game will be lacked that it is difficult like before for a winning line to express with which line a prize was won when a winning line was complicated, in order to attain diversification of a game better at the cases of being comparatively simple, such as linear, and the distinction is not easily attached as for a game person.

[0006]This invention is accomplished in view of the above situations, and it is in a game person raising the enjoyment of a game substantially, as the place made into the purpose can distinguish easily a pattern applicable at the time of winning a prize.

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## MEANS

[Means for solving problem]The thing this invention is characterized by that comprises the following and which provides a slot machine.

The display which two or more patterns align in all directions, and is shown in order to attain the above-mentioned purpose.

In the slot machine which supplied the regular right to the game person when the pattern which has a final controlling element for changing each of that pattern, and was shown in said display formed a predetermined winning-a-prize pattern, The identification device which leaves the pattern which formed the winning-a-prize pattern in said display, and the field which counters while it has been transparent and by which other patterns and the field which counters are temporarily made translucent or opaque.

[0008]The slot machine this invention is characterized by that comprises the following.

The display which two or more patterns align in all directions as other modes, and is shown.

In the slot machine which supplied the regular right to the game person when the pattern which has a final controlling element for changing each of that pattern, and was shown in said display formed a predetermined winning-a-prize pattern, The identification device distinguished from the field where it paints to this pattern and the field which counters, making into a visible state the pattern in which the winning-a-prize pattern was formed, and other patterns counter said display.

[0009]Although the shield whose opening and closing are enabled individually can also be formed on the display position of each pattern as an identification device here, it is desirable to constitute an identification device from a liquid crystal panel preferably.

[0010]

[Mode for carrying out the invention]Hereafter, the example of application of this invention is explained in detail based on Drawings. First, drawing 1 is a front view showing an example of a slot machine. In drawing 1, it is a machine frame in which 1 accomplishes the exterior of a slot machine, and the pivotable drum which made 2 the letter of 3 parallel and provided it in the inside of a machine frame, and two or more patterns of the kind are given to the peripheral surface of each of that drum 2 at equal intervals in the hoop direction, respectively. 3 is a display which can see through the pattern of each drum, and for every drum, a total of nine patterns align three [ at a time ] in all directions at this display 3, and it is shown in it. 4 is a final controlling element for changing the pattern which appeared in the display, and this final controlling element 4 comprises the slot lever 5 for rotating each drums 2 all at once, and the stop button 6 for stopping each drum 2 individually. The guidance light for specifying the starting light which 7 formed under the display corresponding to each drum, and the winning line validated by 8, 9 is an entrance slot of a medal required to perform a game, among these the starting light 7 is turned on during rotation of the drum 2, according to the number of injections of a medal, the light is switched on in order, and the

guidance light 8 blinks only the thing on a line applicable at the time of winning a prize. A return port for 10 to pay out the medal of a predetermined number at the time of winning a prize, the saucer which receives the medal which 11 paid out, and 12 are displays for indication which display the volume of payment of a medal. Here, the medal used for a game can be stored not only in supplying from an entrance slot each time but in an internal memory to 50 sheets as data. The injection button used when the display for indication with which 13 shows the reservoir quantity, and 14 use this medal, and 15 are the liquidation buttons for taking out the actual thing of this medal. In addition, the return button used when the medal which 16 threw into the entrance slot is got blocked, and 17 show the ash pan.

[0011]Next, drawing 2 shows an example of composition of a control circuit in an application-concerned slot machine. In drawing 2, control-block A begins CPU18 as a central processing unit, an execution program of a game is written in ROM19, including ROM19 and RAM20, and data needed for games, such as the amount of reservoir medal numbers, is written in RAM20 each time.

[0012]On the other hand, as for the drum 2, control-block B is linked with CPU18 via the control section 21 and the position transducer 22 of the motor for driving, including the drum 2 as a controlled object, the slot lever 5 as the final controlling element 4, the stop button 6, and the entrance slot 9. It is made for quantity of a medal thrown in from the entrance slot 9 to be transmitted through the quantity detector 23 CPU18 with this figure, so that clearly. Here, an output unit including the starting light 7, the guidance light 8, the displays for indication 12 and 13, etc. is connected to CPU18 via the control section 24. The hopper 26 in which many medals are stored, and the liquid crystal panel 33 mentioned later are also respectively connected to CPU18 via the control sections 25 and 27.

[0013]Next, drawing 3 shows the example of composition of a display. The display 3 carries out the opening of the part of the front face of the machine frame 1 which faces the peripheral surface of each drum 2, considers it as the window 31, and is constituted by fixing the liquid crystal panel 33 via the bezel 32 inside this window 31 so that clearly [ in this figure ]. The liquid crystal panel 33 constitutes the identification device which can distinguish easily the pattern in which the winning-a-prize pattern was formed, as coloring control of the pattern of each drum 2 at the time of a stop and the nine fields which counter is individually carried out by the driver slack control section 27.

[0014]Drawing 4 is the example which painted to the opposed face with other patterns, and was made translucent, leaving an opposed face with the pattern in which the winning-a-prize pattern was formed, transparently and colorlessly. In drawing 4, a winning-a-prize pattern is formed of three patterns shown with a star shape. The pattern of the star shape which forms that winning-a-prize pattern at this time, and the field which counters are left behind while it has been water-white, it is painted to the field where other patterns unrelated to a winning-a-prize pattern counter by the translucent state (slash part of a figure), and it is made indistinct [ this pattern ]. The pattern which forms a winning-a-prize pattern by this, and the other pattern are divided into light and darkness, and since it becomes clear while only the pattern which forms a winning-a-prize pattern has been a visible state, the game person can distinguish a winning-a-prize state in an instant.

[0015]Here, if an operation of the slot machine constituted as mentioned above is explained, in performing a game, a game person will throw the medal of 1-3 sheets into the entrance slot 9 first. Then, while the winning line validated is decided, the game person can check the number of injections of a medal with lighting of the guidance light 8. And after checking this, each drums 2 rotate all at once by operating the slot lever 5. Then, timing is measured, each stop button 6 is pushed, and the corresponding drum 2 is stopped in order. If the pattern which all the drums 2 stopped and was shown in the display 3 in this way forms a predetermined winning-a-prize pattern, it will be detected by the position transducer 22 which this shows to drawing 2, and the detecting signal will be outputted to the control section 27 of the liquid crystal panel 33 through CPU18. The liquid crystal panel 33 drives only fixed time by this, and it leaves the pattern in which the winning-a-prize pattern was formed, and the field which counters, and it is palely painted to other patterns

and the field which counters in red etc., and it is made translucent. And when fixed time passes, it will change the liquid crystal panel 33 into a non-operative state, and all the corresponding patterns can be vividly checked through the display 3 by returning all the fields transparently and colorlessly. [0016]When the expenditure signal of a medal is outputted also to the hopper 26 through the control section 25 at the time of winning a prize and a prize is especially won in a predetermined pattern, the program of ROM19 carries out a step to a specific routine as everyone knows, and what is called a bonus game is started. On the other hand, if it becomes clear that the winning-a-prize pattern is not formed on which winning line by the position transducer 22, The signal is outputted to the control section 27 of the liquid crystal panel 33 through CPU18, and it tells that it was painted only to fixed time by the translucent state, and all the fields of the liquid crystal panel 33 which counters each pattern by this did not win a prize of a game person.

[0017]As mentioned above, although a suitable example of this invention was explained, this invention can also make the pattern corresponding to this the entire invisible state instead of an indistinct display not only the above-mentioned example but by making deep coloring of a pattern unrelated to a winning-a-prize pattern, and the field which counters, for example, and making this field opaque. On the contrary, while painting to an opposite field with this pattern at a translucent state, with the fluoroscopy of the pattern in which the winning-a-prize pattern was formed enabled, while it has been water-white, it can leave an opposite field with other patterns. While painting in the translucent state, the field on a pattern unrelated to a winning-a-prize pattern is made unique with the field on the pattern related to a winning-a-prize pattern, and it may be made to paint to the field on the pattern in which the winning-a-prize pattern was formed, translucent or opaquely.

[0018]As a method of controlling an identification device slack liquid crystal panel, whenever 1 time of a game is completed (after a stop of all the drums), it paints to all the fields of the liquid crystal panel 33 translucent or opaquely, When the field on a winning line corresponding in response to the detecting signal at the time of a medal injection is made transparent, all the drums 2 stop and a winning-a-prize pattern is formed in a predetermined pattern, It leaves the field which counters this and other fields are previously made translucent or opaque, and subsequently, it may be made to make a winning-a-prize pattern space translucent or opaque (after fixed time lapse until a medal finishes paying out).

[0019]An identification device is not constituted from a liquid crystal panel of one sheet, but it may be made to control these individually on the other hand using the liquid crystal panel of the number corresponding to the pattern which appears in a display, respectively. An identification device slack liquid crystal panel is made to face on the peripheral surface of each drum, and it does not equip, but may be made to pile up the liquid crystal panel as an identification device on the display as a display which comprises a liquid crystal display in each drum. It may be made to form individually the shield in which switching operation is possible on the display surface of each pattern in the display which a pattern aligns in all directions and is shown not using a liquid crystal panel as an identification device, respectively.

[0020]Here, a winning-a-prize pattern may not be restricted to a pattern of the same kind arranging on a straight line, and the case where the pattern shown with a heart shape, for example like drawing 5 is located in a line with cross shape may be set up as a winning-a-prize pattern. Even if it uses a winning-a-prize pattern like drawing 5 by this invention especially, it is possible to distinguish this in an instant.

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## DESCRIPTION OF DRAWINGS

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[Brief Description of the Drawings]

[Drawing 1]The transverse-plane schematic view showing the slot machine concerning this invention

[Drawing 2]The block diagram showing the control circuit of the slot machine

[Drawing 3]The fragmentary sectional view showing the example of composition of a display roughly

[Drawing 4]The transverse-plane schematic view of a display showing the state where the pattern in which winning-a-prize Pan was formed, and the other pattern were classified

[Drawing 5]The transverse-plane schematic view of a display showing the modification of a winning-a-prize pattern

[Explanations of letters or numerals]

1 Machine frame

2 Drum

3 Display

4 Final controlling element

5 Slot lever

6 Stop button

31 Window

32 Bezel

33 Liquid crystal panel

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[Translation done.]

\* NOTICES \*

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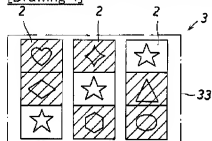
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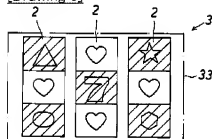
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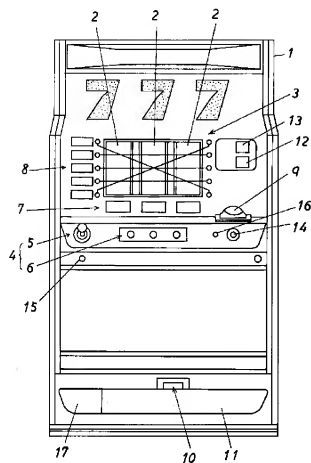
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[Drawing 5]

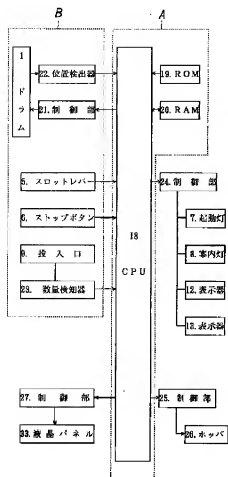


[Drawing 1]

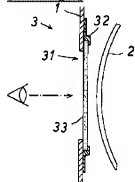


[Drawing 2]





[Drawing 3]



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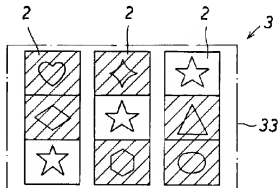
弁理士 羽島 亘

## (54)【発明の名称】 スロットマシン

## (57)【要約】

【目的】 パチンコ遊技場などに設置されるスロットマシンにおいて、入賞時に該当する図柄を遊技者が容易に判別できるようにしてゲームの面白味を大幅に向上させる。

【構成】 複数の図柄が縦横に整列して示されるスロットマシンの表示部において、この表示部3に液晶パネル33を装置し、各図柄をその液晶パネル33を通して透視できるようにする。そして、入賞時には入賞パターンを形成した図柄と対向する領域を透明のまま残し、他の図柄が対向する領域を彩色して半透明又は不透明にする。これにより、入賞パターンと無関係な図柄を不鮮明又は不可視状態にして、入賞パターンに関連する図柄だけを明示する。



# 【特許請求の範囲】

【請求項1】 複数の図柄が縦横に整列して示される表示部と、その各図柄を変化させるための操作部とを有し、前記表示部に示された図柄が所定の入賞パターンを形成したときに遊技者に対して規定の権利を供与するようにしたスロットマシンにおいて、前記表示部に、入賞パターンを形成した図柄と対向する領域を透明のまま残して、他の図柄と対向する領域が一時的に半透明又は不透明とされる識別手段を備えたことを特徴とするスロットマシン。

【請求項2】 複数の図柄が縦横に整列して示される表示部と、その各図柄を変化させるための操作部とを有し、前記表示部に示された図柄が所定の入賞パターンを形成したときに遊技者に対して規定の権利を供与するようにしたスロットマシンにおいて、前記表示部に、入賞パターンを形成した図柄を可視状態にしたまま該図柄と対向する領域を彩色して、他の図柄が対向する領域と区別する識別手段を備えたことを特徴とするスロットマシン。

【請求項3】 識別手段が液晶パネルから成る請求項1、又は2に記載したスロットマシン。

# 【発明の詳細な説明】

## 【0001】

【発明の属する技術分野】 本発明は、表示部に示される図柄の縦列から入賞が否かを決定するスロットマシンに関する。

## 【0002】

【従来の技術】 従来、図柄を合わせたゲーム機として、スロットマシンが良く知られる。一般に、その種のスロットマシンは、周面に幾種類かの図柄を等間隔に施したリング状のドラムを3つ並列にして機枠に内蔵し、その各ドラムの図柄のうちの數個を表示部たる透視窓を通して外部から視認できるようにしてある。その表示部は、例えば各ドラムに対応して機枠の前面を部分的に開口し、その開口部をガラス板などの透明材料により閉鎖して成るものであり、ここには通例として各ドラム毎に3つずつ、合計9つの図柄が縦横に整列して示される。ここで、スロットマシンは所定のメダルを用いてゲームを実行するものであり、機枠にはそのためのメダルを投入する投入口、メダルの投入後に表示部に示される図柄を変化させるための操作部、この操作部の操作で更新された図柄の縦列が所定の入賞パターンを形成したときに所定のメダルを返却するための返却口、及び返却用のメダルを帯えるホッパーなどが設けられる。なお、操作部は各ドラムを一齐に回転させるためのスロットレバーと、回転中のドラムを個別に停止させることのできるストップボタンとから構成されるが、ストップボタンを備えずに各ドラムを自動停止させる型式のものもある。

【0003】 そして、以上のように構成されるスロットマシンによれば、投入口へのメダルの投入後、操作部を

操作してゲームを実行し、全てのドラムが停止したときに表示部に示される図柄の縦列が所定の入賞パターンを形成すると、遊技者は利権を獲得することができる。例えば、先頭のドラムにおける所定の図柄が表示部に示されたときメダルが2枚返却され、又各ドラムにおける同種の図柄が一直線上に配列したときには同図柄の種別によって6〜15枚のメダルが返却され、特に同種の図柄として例えば「7」が一直線上に配列したときなどには、所定数のメダルの返却と共に以降のゲームで入賞パターンを形成する確率が高められるという権利を得ることになる。

【0004】 なお、一回当たりのメダルの投入数は一般に3枚を上限として、1枚投入時には中段の横一列が、2枚投入時には各段何れかの横一列が、又3枚投入時には斜め方向を加えた列がそれぞれ入賞確定ラインとされ、そのライン上で入賞パターンが形成されたときには上述の如く遊技者に対する権利の供与と共に、表示部の付近に設けたランプを点灯させるなどして遊技者へ入賞を知らせられるようにしてある。

## 【0005】

【発明が解決しようとする課題】 しかしながら、表示部の付近に入賞を知らせるランプを設けただけのものは、従来のように入賞ラインが直線形など比較の単純な場合ではまだしも、ゲームの多様化を図るために入賞ラインを複雑にした場合などにはどのラインで入賞したかを表現することが難しく、遊技者にしてもその判別が付きにくくゲームの面白味を欠くことになる。

【0006】 本発明は以上のような事情に操て成されたものであり、その目的とする処は入賞時に該当する図柄を遊技者が容易に判別できるようにしてゲームの面白味を大幅に向上させることにある。

## 【0007】

【課題を解決するための手段】 本発明は上記目的を達成するため、複数の図柄が縦横に整列して示される表示部と、その各図柄を変化させるための操作部とを有し、前記表示部に示された図柄が所定の入賞パターンを形成したときに遊技者に対して規定の権利を供与するようにしたスロットマシンにおいて、前記表示部に、入賞パターンを形成した図柄と対向する領域を透明のまま残して、他の図柄と対向する領域が一時的に半透明又は不透明とされる識別手段を備えたことを特徴とするスロットマシンを提供するものである。

【0008】 又、本発明はその他の態様として、複数の図柄が縦横に整列して示される表示部と、その各図柄を変化させるための操作部とを有し、前記表示部に示された図柄が所定の入賞パターンを形成したときに遊技者に対して規定の権利を供与するようにしたスロットマシンにおいて、前記表示部に、入賞パターンを形成した図柄を可視状態にしたまま該図柄と対向する領域を彩色して、他の図柄が対向する領域と区別する識別手段を備え

たことを特徴とするスロットマシンを提供する。

【0009】ここで、識別手段として、各図柄の表示位置上に個別に開閉可能とされる遮蔽板を設けることもできるが、好ましくは識別手段を液晶パネルで構成することが望ましい。

【0010】

【発明の実施の形態】以下、本発明の適用例を図面に基いて詳細に説明する。まず、図1はスロットマシンの一例を示した正面図である。図1において、1はスロットマシンの外装を成す機枠、2は機枠の内部に3つ並列状にして設けた回転可能なドラムであり、その各ドラム2の周面にはそれぞれ複数種類の図柄が周方向に等間隔で施されている。3は各ドラムの図柄を透視可能な表示部であり、この表示部3には各ドラム毎に3つずつ、合計9つの図柄が縦横に整列して示される。4は表示部に表した図柄を変化させるための操作部であり、この操作部4は各ドラム2を一緒に回転させるためのスロットレバーと、各ドラム2を個別に停止させるためのストップボタン6とで構成される。7は各ドラムに対応して表示部の下に設けた起動灯、8は有効とされる入賞ラインを明示するための案内灯、9はゲームを実行するために必要なメダルの投入口であり、このうち起動灯7はドラム2の回転中に点灯し、案内灯8はメダルの投入数に応じて順に点灯すると共に、入賞時には該当するライン上のもののみ点滅する。又、10は入賞時に所定数のメダルを払い出すための返却口、11は払い出されたメダルを受ける受皿、12はメダルの払出数量を表示する表示器である。ここで、ゲームに用いるメダルは投入口からその都度投入することに限らず、内部メモリにデータとして例えば50枚分まで貯留することができる。13はその貯留数量を示す表示器、14は該メダルを使用する場合に利用する投入ボタン、15は該メダルの現物を取り出すための清算ボタンである。そのほか、16は投入口に投入したメダルが詰まったときに利用する返却ボタン、17は故障を示すとき。

【0011】次に、図2は本願スロットマシンにおける制御回路の構成例を示す。図2において、制御ブロックAは中央処理装置としてのCPU18をはじめ、ROM19およびRAM20を含み、このうちROM19にはゲームの実行プログラムが書き込まれており、RAM20には貯留メダル数量などゲームに必要とされるデータがその都度書き込まれる。

【0012】一方、制御ブロックBは制御対象としてのドラム2、操作部4としてのスロットレバー5及びストップボタン6、並びに投入口9を含み、このうちドラム2はその駆動用モータの制御部21と位置検出器22とを介してCPU18とリンクされる。又、この図で明らかなように、投入口9より投入されたメダルの数量は数量検知器23を通じてCPU18に伝送されるようにしてある。ここで、CPU18には起動灯7、案内灯

8、及び表示器12、13などを含めた出力装置が制御部24を介して接続される。又、多数のメダルが蓄えられるホッパ26や後述する液晶パネル33も各々その制御部25、27を介してCPU18に接続される。

【0013】次に、図3は表示部の構成例を示す。この図で明らかなように、表示部3は例えば各ドラム2の周面に臨む機枠1の前面の部位を開口して窓31とし、この窓31の内側にベゼル32を介して液晶パネル33を固定することにより構成される。その液晶パネル33は、停止時における各ドラム2の図柄と対向する9つの領域がドライバたる制御部27により個別に彩色制御されるようにして、入賞パターンを形成した図柄を容易に判別し得る識別手段を構成する。

【0014】図4は、入賞パターンを形成した図柄と他の対向面を無色透明に残しつつ、他の図柄との対向面を彩色して半透明とした例である。図4において、入賞パターンは例えば星形で示される3つの図柄により形成され、この時その入賞パターンを形成する星形の図柄と対向する領域は無色透明のまま残され、入賞パターンと無関係な他の図柄の対向する領域は半透明状態（図の斜線部）に彩色されて該図柄が不鮮明とされる。これにより入賞パターンを形成する図柄とそれ以外の図柄が明確に分かれ、入賞パターンを形成する図柄だけが可視状態のまま鮮明になるので、遊技者は入賞状態を瞬時に判別することができる。

【0015】ここで、以上のように構成されるスロットマシンの作用を説明すれば、遊技者はゲームを実行するにあたり、まず投入口9へ1〜3枚のメダルを投入する。すると、有効とされる入賞ラインが確定されると同時に、遊技者は案内灯8の点灯をもってメダルの投入数を確認することができる。そして、これを確認した後、スロットレバー5を操作することにより各ドラム2が一緒に回転する。そこで、タイミングを計って各ストップボタン6を押し、対応するドラム2を順に停止させるのである。斯くて、全てのドラム2が停止して表示部3に示された図柄が所定の入賞パターンを形成すると、これが図2に示す位置検出器22により検出され、その検出信号がCPU18を通じて液晶パネル33の制御部27に出力される。これにより液晶パネル33が一定時間だけ駆動され、入賞パターンを形成した図柄と対向する領域を残し、その他の図柄と対向する領域が彩色などで淡く彩色されて半透明とされる。そして、一定時間が経過すると、液晶パネル33が不動作状態とされ、全ての領域が無色透明に戻されることにより、対応する全ての図柄を表示部3を通して鮮明に確認できることになる。

【0016】なお、入賞時には制御部25を通じてホッパ26にもメダルの払出信号が出力されるのであり、特に所定の図柄で入賞したときにはROM19のプログラムが周知のように特定のルーチンにステップして所謂ボーナスゲームを開始される。一方、位置検出器22によ

り何れの入賞ライン上でも入賞パターンが形成されていないことが判明すると、液晶パネル33の制御部27にはCPU18を通じてその信号が出力され、これにより各図柄に対向する液晶パネル33の全領域が一定時間だけ半透明状態に彩色されて遊技者に入賞しなかったことを知らせる。

【0017】以上、本発明の好適な一例を説明したが、本発明は上記例に限らず、例えば入賞パターンとは無関係な図柄と対向する領域の彩色を濃くして、該領域を不透明にすることにより、これに対応する図柄を不鮮明な表示でなく全くの不可視状態にすることもできる。逆に、入賞パターンを形成した図柄を透視可能にしたまま該図柄との対向領域を半透明状態に彩色する一方、他の図柄との対向領域を無色透明のまま残すようにすることもできる。又、入賞パターンを形成した図柄上の領域を半透明状態に彩色する一方、入賞パターンとは無関係な図柄上の領域を入賞パターンに関係する図柄上の領域と異色にして半透明又は不透明に彩色するようにしてもよい。

【0018】更に、識別手段たる液晶パネルの制御法として、一回のゲームが終了するたび（全ドラムの停止後）に液晶パネル33の全領域を半透明又は不透明に彩色し、メダル投入時の検出信号を受けて対応する入賞ライン上の領域を透明とし、全ドラムが停止して所定の図柄で入賞パターンが形成されたときには、これに対向する領域を残して先に他の領域を半透明又は不透明にし、次いで一定時間経過後（例えばメダルが払い出し終えるまで）、入賞パターン領域を半透明又は不透明にするようにしてもよい。

【0019】一方、識別手段を一枚の液晶パネルで構成するのでなく、表示部に表れる図柄に対応した数の液晶パネルを用い、これらをそれぞれ個別に制御するようにしてもよい。又、各ドラムの周面上に識別手段たる液晶パネルを隣り合せて装置するのでなく、各ドラムを液晶表示装置から成る表示部として、その表示部上に識別手段としての液晶パネルを重ね合わせるようにしてもよい。更に、識別手段として液晶パネルを用いず、図柄が縦横に整列して示される表示部において、各図柄の表示面上にそれぞれ個別に開閉操作が可能な遮蔽板を設けるよう

にしてもよい。

【0020】ここで、入賞パターンは、同種の図柄が一直線上に配列することに限るものでなく、例えば図5のようにハート形で示される図柄が十字状に並んだ場合を入賞パターンとして設定してもよい。特に、本発明では図5のような入賞パターンにしても、これを瞬時に判別することが可能である。

【0021】

【発明の効果】以上の説明で明らかなように、本発明に係るスロットマシンによれば、表示部上にあらわれた図柄が所定の入賞パターンを形成したときに、その対向領域を透明にして無関係な図柄が対向する領域を半透明又は不透明にするなどした識別手段を備えていることから、入賞時には数あるうちの何れの入賞パターンが形成されたか、又その入賞パターンが表示部の如何なる位置に形成されたかを遊技者が瞬時に判別できる。これにより、ゲームの面白味が増すばかりでなく、入賞パターンを複雑にしてゲームの多様化を図ることもできる。

【図面の簡単な説明】

【図1】本発明に係るスロットマシンを示した正面概略図

【図2】同スロットマシンの制御回路を示したブロック図

【図3】表示部の構成例を略率的に示した部分断面図

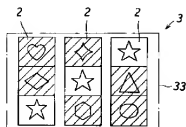
【図4】入賞パターンを形成した図柄とそれ以外の図柄とが区分された状態を示した表示部の正面概略図

【図5】入賞パターンの変形例を示した表示部の正面概略図

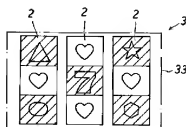
【符号の説明】

- 1 機枠
- 2 ドラム
- 3 表示部
- 4 操作部
- 5 スロットレバー
- 6 ストップボタン
- 31 窓
- 32 ベゼル
- 33 液晶パネル

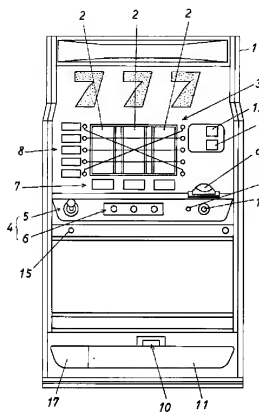
【図4】



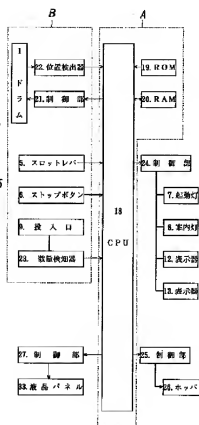
【図5】



【図1】



【図2】



【図3】

